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Voice culture and singing

FRIEDRICH BRUECKNER—RUEGGERBERG

INTRODUCTION

As a European professor of singing and instructor for voice-culture, I have to ask myself first if Indian and European vocal traditions have anything in common.

After studying various Indian sources, after informative talks and experiments of my own with young singers at Kalakshetra, I have come to the conclusion that there *are* common traits. Furthermore, I believe that adequate research will reveal ancient common roots that have resulted eventually in different styles and forms of musical expression.

Very early, there were relations between Greece and India, and the ancient trade in Indian spices and silk favoured, no doubt, also a vivid cultural exchange.

Oriental musical instruments found their way to the West, and bards, dancers, musi-

cians and acrobats brought the charm of Indian arts to the enchanted peoples of Europe. Such early influences and inspirations can be detected in Western music life even today. A narrative style of chanting based on religious themes and meant for use in ceremonies is common to both cultural spheres. Some similarities (regarding constructive elements in melody and rhythm, for instance) are striking, especially in earlier European music.

From Renaissance onward, the incorporation of Greek drama in music led to the creation of the 'opera' in which singing, acting and dancing are combined. Its rapid development culminated (after the 'Baroque' and 'Classical' periods) in the 'Romantic' and 'Veristic' opera of the 19th century. This particular aspect of European music with its specific implications for the training of vocalists is obviously very different from



Professor Friedrich Brueckner - Rueggeberg, hailing from an eminent family of musicians, has made himself a name as Concert - and Oratorio - singer (tenor) on the platform and in broadcasting studios all over Europe in a career spanning four decades. He founded and directed a number of reputed music ensembles of 'Alte Musik' (i.e., music of the Middle Ages, Renaissance and Baroque) and was awarded the 'Grand Prix Du Disque' in 1953.

A fervent student of Oriental culture and spirituality all his life, he visited India and Kalakshetra for the first time in early 1982. This treatise, specially written for the Kalakshetra Quarterly, is the outcome of his meetings with Indian artists and some work with Carnatic singers. The article has been translated into English and arranged for publication by Ludwig Pesch, a former student of Prof. F. Brueckner-Rueggeberg at Freiburg and presently at Kalakshetra.

India's vocal traditions. One thing, however, remains common to both the Oriental and Occidental vocal traditions:

The singer has to cultivate his 'instrument', the voice, in order to meet the demands regarding power of expression and flexibility he is faced with as a professional artist.

The singer's primary task, despite all differences in taste, language and usage is the same in all styles and traditions because, anatomically, the voice apparatus (larynx) and its functioning are identical in all races. To delineate these functions will be the first task. This will enable us to understand the appropriate ways of unfolding the voice's capacities and their utilization for the purpose of art.

Furthermore, it will be shown that the power of the voice to heal and elevate man from ordinary existence is not only a theoretical concept of merely philosophical value but has a real base that can be cultivated and experienced with zeal, talent and devotion.

1. THE VOICE APPARATUS IS MORE COMPLICATED THAN NECESSARY FOR THE PROCESS OF SPEAKING ALONE

It is of great relevance to understand that the complexity of the voice apparatus and its functions exceeds by far the requirements of spoken language. But, in evolution, the first sounds of the voice (which later became the vowels) were necessary for early mankind's communication over long distances¹. A great, powerful and resonating voice must have been man's call—and signal—voice. In the course of civilization, an intellectually controlled development of language probably led to the departure from such preliminary

necessities resulting in a degeneration (atrophy) of the ordinary voice-organ since speaking and singing (which is based on vowels) are two entirely different applications of the voice.

To counterbalance the effects of such one-sided usage of the voice in speech, the development of the muscles concerned, has always been the prime goal of the singer responsible for maintaining his cultural heritage. This is what we have to begin with if we are truly concerned with 'Voice Culture'. Various methods have evolved and have been traditionally handed down from generation to generation just as in the Indian 'Gurukula' system.

We can compare the undeveloped voice to an unfinished or incomplete musical instrument—neither will be capable of producing good music in any satisfactory manner. The singer has to reconquer the original scope, strength and capacity of the voice in order to let it shine and reveal its real beauty.

2. SOUND—PRODUCTION, BREATH—CONTROL AND POSTURE

The sound of the voice is caused by the stream of air which sets the pair of symmetrical vocal cords into vibration when exhaled thereby setting the surrounding air in vibration, too. This, in turn, is perceived as sound by our ears.

Therefore, since breath is the *cause* and air the *medium* of vocal sound, controlled and balanced utilization of breath forms the first and most important step in any voice-training.

In order to breathe correctly for the purpose of singing, a correct posture of the whole body is indispensable.

1) This fact is utilized in practising vowels in the method of 'Placing the Tone' in 6. (see also chart)

All the muscles of the body involved in the breathing-process must be made usable without any obstruction. The whole volume of the lungs should be made available. The control-system of the 'diaphragm' (see chart) needs to be freed of restrictions in order to work without cramping. To achieve this aim, an *elastic* posture—upright but without stiffness—(see fig. 1 and 2) is needed. Hereby, the muscles of the back have to *remain movable* with ease when straightened while

the lower back (or the feet in standing position) becomes firmly *rooted* in the ground as a counterbalancing movement. From the ground, we imagine *drawing* the 'power', which establishes a snake-like stretching of the spine (see fig. 3.) This sitting (or standing) posture has to enable the singer to rid himself of any stiffness of the back through slight movements and protect himself from fatigue in prolonged singing.

The chest should be slightly lifted, in order to rest calmly and untouched by the breathing process like a bell above diaphragm and pelvis. A light and pleasant feeling like gliding should be sought whereby both the spaces of chest and stomach give rise to a wide and open sensation. Great care is required to prevent the upper chest from lowering during fatigue (see fig. 4) thereby posing a harmful burden onto the diaphragm and inevitably obstructing the movements of both, voice-apparatus and breath.

Inhaling breath should be done *automatically* and without effort just like sniffing the fragrance of a flower. The muscles of the

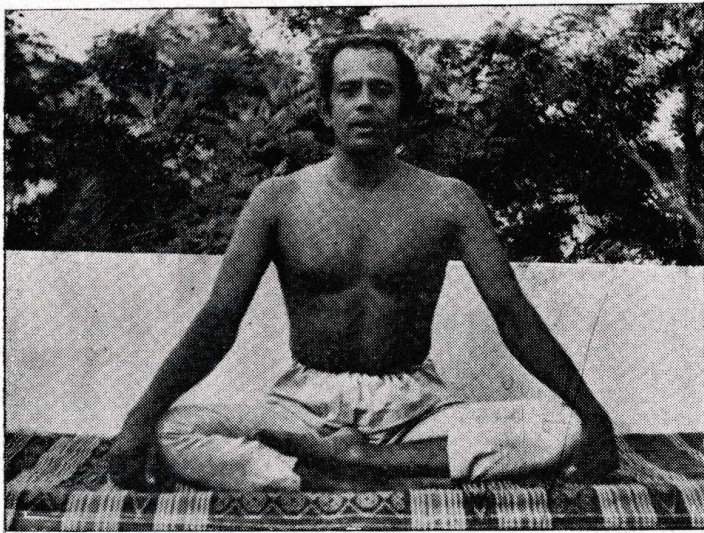


Fig. 1 UPRIGHT WITHOUT STIFFNESS

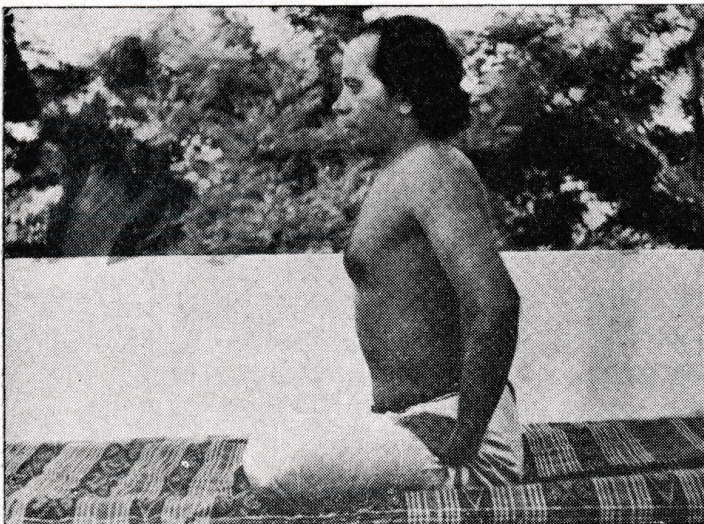


Fig. 2 UPRIGHT WITHOUT STIFFNESS (SIDE-VIEW)

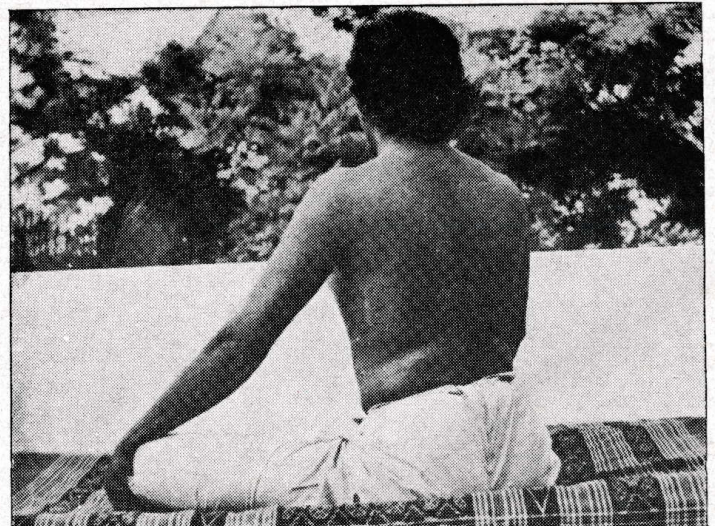


Fig. 3 "SNAKE-LIKE" STRETCHING OF THE SPINE.
BREATH-SUPPORT IN THE BACK



Fig. 4 FORCEFUL PRESSURE UPWARDS (BAD POSTURE)



Fig. 5 SLIGHT OUTWARD BULGING OF BELLY DURING INHALATION WITH SUPPORT OF DIAPHRAGM

belly ought to bulge slightly outward following the downward movement of the diaphragm and thereby supply the voice naturally with the required and rather small quantity of air. (see fig. 5 and 6.)

A stiffening of the belly-muscles is the singer's most dangerous enemy and in fact can ruin his voice for good. This is due to the fact that any forceful pressure upward towards the throat will acutely disturb it and cause its stiffening (see fig. 4.)

The breath support for the voice should *not* originate in the belly-muscles as frequently but mistakenly assumed but on the opposite side in the *back and its stretching muscles* (see fig. 3.) The various groups of muscles concerned can be activated effectively by expressions of everyday-life such as laughter, groaning, sighing and yawning which, besides their therapeutical value, create an awareness of their functioning and contribute to the improvement of the voice.

'Staccato'—laughing exercises (repeated short impulses of laughter) convey a feeling of wideness if executed on the diaphragm

whereby the muscles near the hips should be involved. An expansion of the inner chest-muscles can be achieved by turning the upper body and through exercises as used in Yoga Asanas. One should always avoid exaggerations which again, would lead to tension.

In brief: *Elasticity* of the body is the first prerequisite for successful practice. The diaphragm can be activated and trained through rhythmical exhalation without upward pressure or accumulation of breath in the chest by utilizing hissing and friction-noises and labial consonants.

3. THE SINGER CANNOT DIRECTLY CONTROL ALL THE MUSCLES INVOLVED IN SINGING AT WILL

Since some muscles cannot be influenced voluntarily, the singer has to achieve his goal of an ideal sound quality with the aid of *mental images*.

The most important device of this kind is the imaginative counter-movement which causes an activation of the 'antagonists' in an interplay of opposites. E.g.: In order to

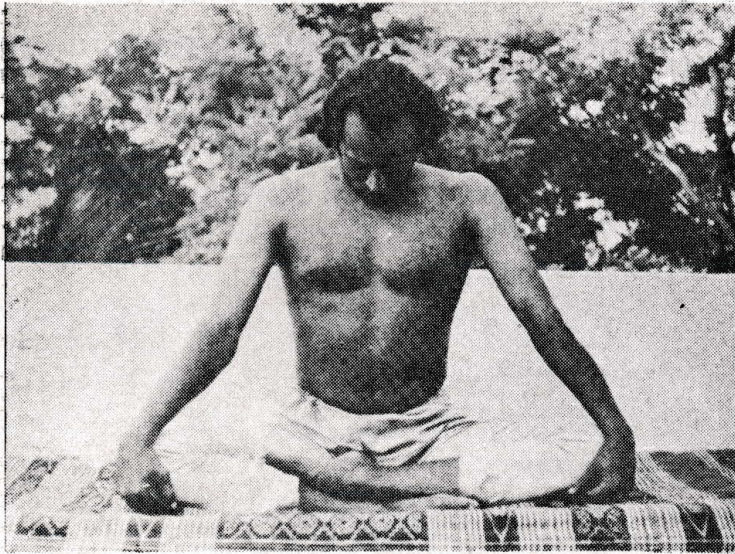


Fig. 6 EXHALATION REGULATED BY UPWARD MOVEMENT OF DIAPHRAGM

avoid excessive and hasty breath-consumption, we couple a note with the idea of *inhalation* while singing it (rather than with the actual process of exhalation) and with the feeling of *remaining wide* in chest and abdominal space (instead of contraction). This valuable method is called 'inhalare la voce' (inhaling the voice) in the Italian teaching of Belcanto singing.

In this manner, the singer feels an opposite movement within himself which conveys a sensation of gliding and lightness linked to the ideal of a gliding sound. Thus we see the interdependence of breath and posture. Once this interaction is established, we have made the first step towards the perfection of the voice.

4. THE VOICE APPARATUS

Now we come to the larynx, the actual voice apparatus, itself. I do not want to deal with too many anatomical details here, since there is specialized literature available on this subject². Only such

topics shall be dealt with which are important for the singer himself and which do not burden him unnecessarily.

The larynx is anchored in a network of muscles in throat and neck and supported by the posture described above. This network of muscles, too, must work in an elastic manner and should not be stiffened by wrong usage. Since these muscles are hardly used in the process of speaking, they are commonly atrophied (i.e. not fully developed) in untrained singers and need to be awakened and brought to their full capacity by systematic exercise.

Such weakness of muscles is especially evident with the muscles connecting the larynx downward with the upper chestbone. During inhalation and opening of the throat, one can feel the (desirable) low position of the larynx as well as during ordinary singing in a low range. This enables us to visualize and influence through suitable practice the important downward pull of these muscles also during singing in higher ranges. Only with the combined visualization of a low position of the larynx and the body-sensation of being well rooted in the ground, we can achieve in steady practice a singing in the high range which is free of the common 'squeezing' and eventual drop-out of the sound under stress. A feeling of anchoring the larynx in the back of the neck while opening it widely as if to 'swallow' the larynx is also of great help.

The movement countering the described downward, forward and backward anchoring of the larynx and the opening of the throat consists in elevating the soft palate (at the upper back of the mouth-space) and a

2) The book 'Voice Culture' of S.A.K. Durga, Baroda 1978, provides further details and illustrations. The great standard work 'Die Physische Natur des Stimmorgans' of Frederick Husler appeared in English ('Singing'), London and New York 1965

feeling of wideness in the upper head-space. Such contrasting sensations result in a calm, relaxed and open throat if harmoniously blended. The image of 'taking the sound from the head' is most helpful and should be cultivated as a counterbalance to the deep rooting of both, larynx and breath. As a result, we succeed in preventing harmful excessive air-pressure against the larynx and a narrowing of the throat inevitably leading to a 'squeezing' of the voice. Thus we can ultimately arrive at a free and open usage of the upper range of the voice.

Obviously, a correct posture of the whole body is of utmost importance here, too. The singing with a root-point in the back of the neck provides an ideal opening of the throat by activating the muscle (Cricopharyngeus) otherwise only put into action for vomiting. The additional opening in the back of the throat leads to an extraordinarily increased volume of the voice and lends a rich, dark tone.

Once the correct rooting of the voice-apparatus in its network of muscles has been achieved—a process that requires much concentration and patience—we can proceed to work on the *refinement* of the sound-quality of the voice which depends on the 'vocal folds', the actual producers of the sound.

The larynx consists of a marvellous system of fine bones and muscles which by their joint action produce the sound in the vocal folds. These two muscular folds covered by an elastic membrane are placed within the 'cartilaginous' framework. It is their vibratory action which by turning the outflowing breath into sound, is most directly responsible for the production of voice.

The inner compact muscular bodies of the vocal folds are described as 'vocal lips', and the margins of the vocal folds formed

by the longitudinal strands of the elastic membrane that covers the vocal folds, are termed 'vocal bands'. The vocal lips can be contracted and determine the *pitch* and *volume*. Their functioning is perceived and activated with a sensation of *tension* because these muscle-bundles are able to tense and to relax separately.

The vocal bands can be stretched because of their elasticity. As a result of the stretching of this thin membrane found on the edge of both the symmetrically placed vocalis muscles, we achieve an exact closure of the two, called 'glottis'.

However, excessive air-pressure from the lungs disturbs this important stretching function necessary for an expressive, clean and freely vibrating sound. The functioning of this inner part of the vocal cords, called vocal folds or 'true cords', is perceived and activated with a sensation of stretching. It is a deficiency of this particular function which is audible in the singing of untrained voices as rough, coarse and sometimes also as flimsy and husky intonation indicating a lack of voice-culture. Such voices generally also suffer from constraints in the higher range and often from unclear intonation.

5. TASKS AND RESPONSIBILITIES OF THE TEACHER

The extremely fine, complicated and susceptible muscles of the larynx cannot be influenced directly and by mere willpower. Only by employing imaginative or mental visualizations in combination with a well cultivated bodily sensitivity in the process of singing, can we arrive at a *functionally and musically sound* foundation for controlling the voice. In addition, a cultivated musical ear and a corresponding inner conception of sound based on valid aesthetical criteria require utmost attention in the training.

Meaningless and uncontrolled singing and exercising are rather harmful since the long-term memory of the brain needs to be supplied with correct impulses which requires immediate recognition of functional disorders and their correction.

Herein lies the great and far-reaching responsibility of the teacher whose full care and control is demanded in order to allow the singer to acquire an automatic and playful sense for the correct usage of his voice. In this manner, he is relieved sufficiently to devote himself fully to content and presentation of his music (described as *Bhava* in India).

The results of modern brain-research fully confirm the principle that practicing is meaningful only when done with freshness of mind and with concentration. Technical faults in the usage of the voice due to wrong practice, once they are adopted as a habit, can be eradicated only with great difficulty, under expert supervision and with great patience in a process that can take years altogether.

In this context, the finding of the suitable range (register) of an individual's voice, which is inborn and therefore imperative, needs thorough consideration. It is not uncommon for teachers and students to choose a *wrong basic pitch* (Indian 'sruti'). The reasons therefore range from inhibitions to sing in a higher register than common to ignorance or blunt laziness in cases where a range lower than natural is resorted to which, in the long run results in irrevocable damage to the sensitive 'instrument' - one that cannot be repaired or replaced. As we cannot just buy a new one, as in the case of a broken instrument, some of the ways in which this delicate organ can suffer damage deserve a second thought :

Screaming and pressing the voice in a low range inevitably leads to damage as much as incompetent forcing of high notes or a misunderstood 'false voice' singing.

A popular device of self-deception, the pressing of the base of the tongue against the rising larynx, produces in the unfortunate singer himself the delusion of a majestic voice. He is quite unlikely to give up this harmful habit once adopted, since his own ear alone will perceive the result as beautiful.

Many victims of either wrong techniques of singing or careless teachers keep wandering from teacher to teacher in pursuit of their shattered hopes. This fact lends weight to the concept of voice control from the very beginning before defects can encroach that are so hard to correct later on, if at all.

6. THE TIME-PROVEN METHOD OF MAKING THE VOICE'S RESOURCES AVAILABLE

Placing the tone

Centuries of experience in voice-training by professional pedagogues have yielded a system for the mental directing of the voice's functions. Understanding this method of 'Placing the Tone' can be of invaluable help for working on voice-culture.

Hereby, the sound of the voice is directed towards a system of imaginative and visualized points, which effectively results in the interplay of specific functions of the larynx, throat, body and respiratory system, which can, as shown above, partly not be controlled otherwise. In this manner, very specific tone and sound qualities can be produced. A vocalist who controls these functions is capable of truly playing with his voice as he pleases, as he possesses a 'palette' of shades and colours for his music.

Placing the tone at the teeth (see also chart): The edges of the vocal cords, the vocal folds described above, are stretched, the closure (glottis) is well achieved. The result is that the voice becomes more smooth and flexible. Complicated embellishments (Indian *Gamakas* and *Sangatīs*) become easy.

Exercises with this point of placing (teeth) are particularly useful in cases where insufficient closure of the vocal cords results in a flimsy voice. Articulation and 'Parlando' (speaking on a particular note) can be practiced and improved with this exercise. A light smile makes this process easier. Again, it is essential to keep in mind that onesided practice in one type of tone is undesirable, since it only reaches *one* single function. Inevitably, any imbalanced routine of practice would lead to a decline of the voice's other faculties, since the very nature of the muscles leads to the almost immediate atrophy of any part that is not in regular usage. Only a voice thoroughly trained throughout its *entire* range is of musical value.

Placing the tone above the nose (between the eyes): This point supports a refinement of the tone as it reaches the edges of the voice cords and causes a stretching of the membrane. The genuine 'falsetto' has its roots here as well as on the crown of the head.

The sound quality derived from this point is velvet-like and yields especially beautiful soft effects. We can imagine 'treading' the sound here and guiding it downward to the hard palate which results in a contraction and tightening characterized by a natural 'crescendo' (gradual increase of volume).

Placing the tone in the mask denotes the above mentioned points in the trian-

gle of the face (see chart). Singing into the mask provides a good startingpoint for the *refinement* (upward triangle) or *expansion* (downward triangle) of the voice. The latter leads to the great '*forte*' (loudest volume) of the so-called 'call' or 'chest' voice if guided downward to the point of the inner chest-muscle. Hereby, the heavy part of the vocalis is fully involved and the stretching function stimulated. The resulting sound is majestic, balanced and radiant provided the stretching function is not abandoned.

Placing the tone in the hard palate and on the crown of the head improves mainly the upper range of the voice and the 'falsetto' singing.

The sensation of *rising upwards* produced hereby should be maintained even in the lower ranges as far as possible. The utilization of this sensation of rising upward in the middle and lower ranges serves to improve the so-called chest- and middle-voice's tonal quality and at the same time plays an important role in increasing the capacity of the voice to *carry in space* while achieving a continuous quality in all ranges.

The placing of the tone as described above in brief should be practiced in the various registers both, individually and in combinations in order to achieve a rich and balanced voice capable of producing every desired expression.

7. THE CONCEPT OF WHOLESOME VOCAL TRAINING IN WESTERN AND EASTERN TRADITIONS

On the basis of the successful development of all body and voice functions described above, we can speak of true mastery in singing only if all this is matched by a con-

genial musical sense, a control of rhythm and the power of expression. So much only in a brief outline covering some of the most essential features of voice-culture. Needless to say that in the frame of this article, a more detailed and profound delineation cannot be attempted. Personal guidance and experience over some period of time are needed. It is, however, self-evident that the perfection of the physical organ of the voice is but one aspect of the singer's work. Therefore, I wish to say something about another essential aspect in the process of becoming a singer.

In order to fully understand the capacities of the human voice once it is made fit to serve according to the aesthetical requirements of any particular culture of this world, we have to attempt to enter the spiritual realms as part of human existence, too.

8. THE INTEGRATION OF PHYSIOLOGY AND PHILOSOPHY IN VOICE CULTURE

The ancient esoteric teachings and traditions of both East and West can provide us with a clue to understanding the *inner procedures* in singing. Here, the Eastern and Western traditions meet and can be perceived in a pansophic process of cognition.

In Europe, as in India there were early masters and wise men who conceived of singing as an appropriate way for reaching God³. Apollo the Greek god of music elevates the music of his devotee

and singer Orpheus to the celestial heights of the Olympus after his undergoing probations and initiations in the metaphysical realms of the underworld. Therefore the myth of Orpheus⁴ has provided a comprehensive archetype and symbol for the European singer and musician to the present day. A great number of celebrated scientists, artists, mystics and healers of both hemispheres devoted themselves to exploring and practicing music in many ways, throughout the ages.

Since the 19th century A.D. there has again been a growing influence of Indian philosophy on European thought⁵. To mention this provides me with special pleasure since I myself stem from European background. Even more so because I have been exposed to and interested in Eastern culture from early youth as so many others.

9. THE RATIONAL BASIS FOR THE POWER OF MUSIC

In this context, I wish to point out that the concept of the '*Chakras*' is very well suited to account for some of the secrets concerning the power of music and singing as related in the myth of the Thracian singer Orpheus.

The '*Muladhara*' *chakra* is recognized by the awakened singer as the rooting point of his seat (*Asana*), from where his voice draws its power just as the yogic power of the *Kundalini* rises along the spinal column. In its ascension, the other

-
- 3) Dr. V. Raghavan's book 'The Great Integrators - The Saint-Singers of India' (Publications Division, Govt. of India 4th Ed. 1979) gives a detailed account.
 - 4) Whose counterpart Narada has to pass similar trials as the Puranas tell us (R. R. Ayyangar 'History of South Indian Music', Madras 1972 a.o.).
 - 5) Max Mueller's scholarly work (Sacred Books of the East) is equally appreciated in the West and in India. The 'Pancatantra' has had earlier universal influence (Fables of Aesop, Greece, ca. 6th. C.A.D. and La Fontaine, France, 17th C.A.D.). Goethe, Germany, 18th/19th C.A.D. was inspired by 'Sakuntala' and Hermann Hesse (20th C. cosmopolitan) by Siddharta, to mention only some of the best known instances.

chakras are set into vibration until the whole instrument—the singer himself—is in a state of vibration, and his singing begins to radiate what truly constitutes his '*magical spell*' over the listener.⁶ In anatomical terms, we can recognize the so-called '*Phenomenon of Transmission*' which is based on the singer's harmonious breathing with the diaphragm. This initiates a usually unconscious sympathetic adaption of the listener's diaphragm⁷ causing him to tune into the finer vibrations radiated by the singer and ultimately arousing the various emotional and spiritual states conveyed by the music in the listener.⁸

In this context, Sri Tyagaraja's references in some of his *Kritis* deserve our whole-hearted attention⁹.

"Devotion associated with the ambrosia of *Svara* and *Raga* is verily paradise and salvation...To know and realize the nature of *Nada* originating from *Muladhara* is itself bliss and salvation. Likewise is a knowledge of the various resonant *sthanas* (parts of the body) from which emanate the glorious *Saptasvaras* (seven notes). One attains salvation when one becomes a *Jnani* after several births; but he who has *knowledge* of *Ragas* along with *natural devotion* is indeed a liberated soul...A deep knowledge of the

secrets of *Svararnava*, imparted to Parvati by Lord Siva is possessed by the blessed Tyagaraja. Learn them from him, oh mind, by approaching him with faith."

"*Swararagasudha*"—Tyagaraja

The rhythmical element of music is transformed by the diaphragm into the rhythm of breath, influences the blood-circulation and from there has a strong impact on the *emotional* state of a person.

Tones and shades of expression mainly stimulate the imaginative sense through the '*Sympathicus*' and the activities of the glands. In this process, the unconscious of a personality becomes accessible. Meditative and peaceful states of mind can be evoked. This phenomenon is utilized for the purpose of healing through music¹⁰. Not without reason is the value of music-therapy increasingly recognized also by science all over the world¹¹.

From all this we can realize that it is not by chance that the human voice occupies a place of honour in music everywhere.

However, the '*magical*' potentialities of the voice can be applied in less beneficial ways as well, as the excesses of mass hysteria in the past few decades have demonstrated dramatically¹² and sometimes

6) Compare with R. R. Ayyangar's explanations on p. 9, *Hist. of S.I.M.*

7) This can be compared to the acoustical '*Sympathetic vibration*' that is observed when one of two equally tuned *Tuning Forks* or strings (Shadjam-strings of the *Tambura*!) sets the other into vibration by itself.

8) The Indian concept of '*Bhava*' and '*Rasa*' as discussed in Publications Div.'s '*Aspects of Indian Music*', (Reprint 1976) and Dr. A. K. Warder's '*The Science of Criticism in India*' (Adyar, General Series -7-, 1978) is of special interest in this context.

9) All quotations of Tyagaraja *Kritis* taken from '*The Spiritual Heritage of Tyagaraja*', Ramakrishna Math Publ., Mylapore 1966, reprint 1981)

10) In '*Toning - The Creative Power of the Voice*' by L. E. Keyes (Marina Del Rey, California 1964, reprint 1980) we find extraordinary methods and accounts.

11) The fact that healing through music has only recently found scientific approval never prevented the so-called '*primitive*' civilizations from making efficient and beneficial use of it since thousands of years. Today we come to realize the psychological deprivation of the child who has never been consoled by a lullaby from the lips of the mother.

12) Some military music has (under the guise of heroism and patriotism) been devised to arouse abominable energies to kill and demoniacal forces (superhuman strength in combat) in man at will.

with definitely catastrophic effects in manipulative music and fanatical speech.

The higher the state of advancement of the 'magical' singer, the greater the impact of his 'radiation' upon the surrounding world. As the old legends and myths tell us, nature, plants, animals, man and even Cosmic Beings partake in the musicians vibrations¹³. Herein lies the secret of the power of healing - prayers, of hymns of praise, devotion and adoration dedicated to the Supreme Cosmic Being present even in the atom¹⁴ as the universal power which is, in a small fraction reflected and merged in the 'Fire of Kundalini' released in the realized singer. "Is it possible for one who is devoid of real devotion and knowledge of *divine music* to attain salvation? The vital *breath* contacting with *fire* within produces Pranava (OM) and the seven notes" sings Tyagaraja in "MOKSHAMU GALADA".

Thus, the centres or points shown as important for the singer according to the Western tradition in the previous parts of this treatise find their counterparts in the Indian teaching of the chakras and the necessity of their awakening and utilization is confirmed (see references in chart): In Tyagaraja's 'SOBHILLU SAPTASWARA' we are told:

"Worship the beautiful goddesses residing over the seven *svaras* (notes) which shine through navel, throat, heart, tongue... and in and through Rig and Sama Vedas, the heart of the Gayatri Mantra and in the minds of gods and holy men and Tyagaraja".

Asana, the correct posture, unites the singer with the earth. The lower nerve centres (*chakras*) '*Muladhara*' and '*Svadistanam*' have an influence on the muscles of the back and

on the respiratory system as base and sense of force. There also the creative and sensual energies have their seat with their 'magical' potentialities which lend the singing a sublime creative dimension provided they are not abused in a trivial or even vulgar manner.

The *chakras* near navel and heart ('*Manipuraga*' and '*Anahata*'), too relate to the realm of the respiratory system. The diaphragm (near the *Manipuraga chakra*) controls the flow of breath (as described earlier) and the sense of rhythm. It is here, where we find the transition from the conscious into the unconscious sphere of the psyche which gives rise to emotions and moods.

The area near the heart *Anahata chakra* lends the voice volume and strength with the chest as resonator. It is associated with cordiality kindness and love by most peoples of the world. These properties are conveyed by the voice as pure calmness, grandeur and depth.

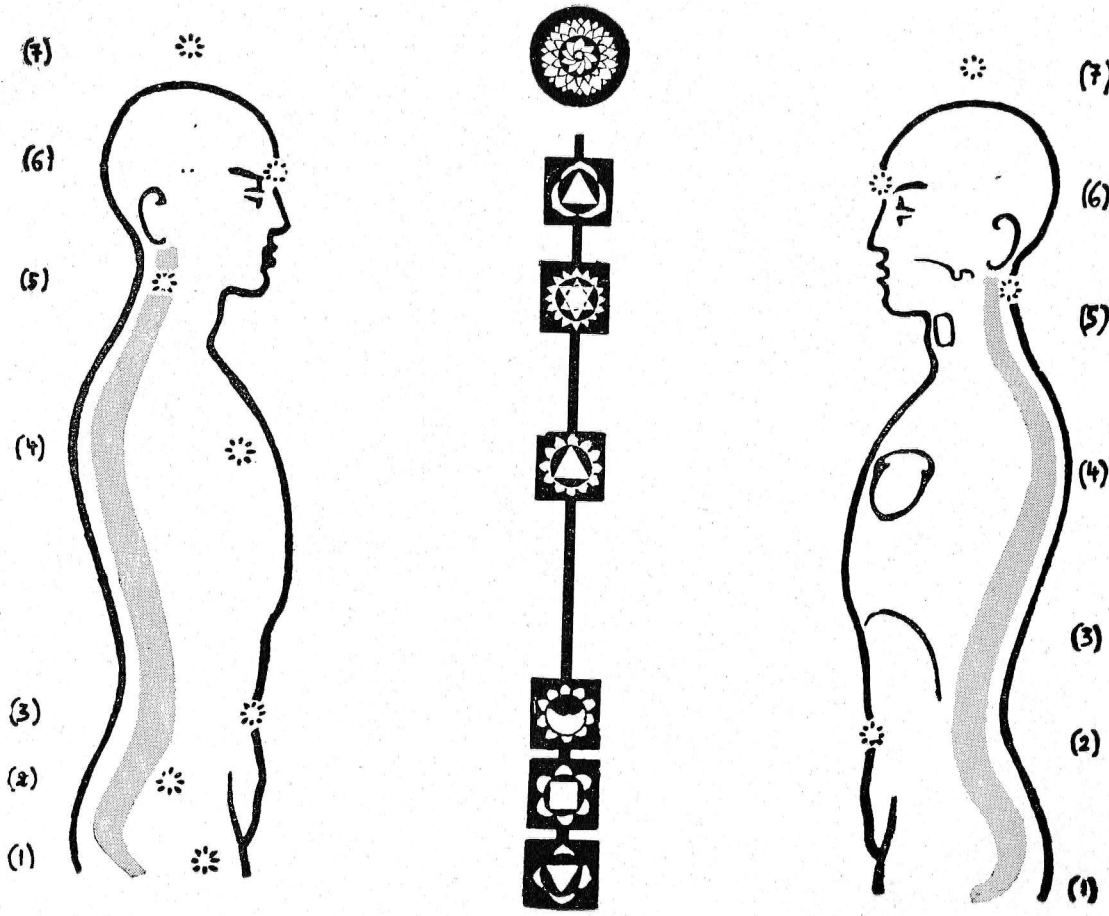
The voice inevitably reveals the emotional state of a person and is highly sensitive to irritations in the very part where the male or female sex becomes audible in puberty, where the sound originates - the throat (at the *Visuddhi chakra*). Since this is the point of balance, contraction and expansion of the organ's parts needs to be carefully put into an equilibrium. Here lies the *chakra* where the higher realms of imagination can be intertwined with spiritual inspiration. Soul and spirit are perceived as merging in the *chakra* between the eyebrows (*Agnai chakra*) where the voice receives refinement and modulation (see chart). Colourful imaginations with highly suggestive effects are possible through utilization of this point. Dedication

13) The stories about miracles through the medium of music are innumerable (also in the life-stories of India's musician-saints as in that of San Francis and others).

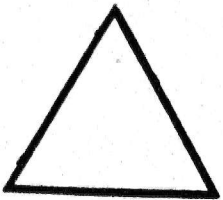
14) Note the Universal "In the beginning was the Word, and the Word was with God and the Word was God" (Gospel of John, compare with the concept of 'Nada Brahman')

THE YOGIC APPLICATION IN INDIAN MUSIC

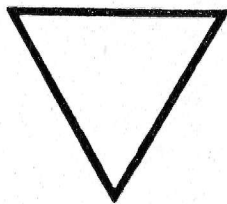
- CHAKRA Range-Reference in Kriti 'Sohillu Saptasvara'
- SAHASRARA (7)
- AGNAI (6) Nasa (nose)
TARA STHAYI (high register)
- VISUDDHI (5) -Rasana (tongue)
-Kantha (neck)
MADHYA STHAYI (middle register)
- ANAHATA (4) - Hrid (heart)
MANDRA STHAYI (low register)
- MANIPURAGA (3) - Nabhi (navel)
- SVATHISTANAM (2)
- MULADHARA (1) ORIGIN OF NADA (Sound) and SAPTASWARAS (Seven notes)



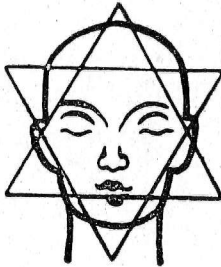
ANATOMICAL LOCATION	PLACING THE TONE METHOD
	Sound-Place Result
CROWN OF THE HEAD (7)	U, UE Above head Refinement
NOSE/EYE-BROWS (6)	O, A Modulation Velvet like "Singing into the Mask" O, A Projection into Space
PALATE (hard, soft) TEETH, TONGUE THROAT (5)	I, E Teeth Flexibility U, O, M Neck-point of "Helmet"-Inspiration
HEART (4)	A, O Chest Volume Resonance Calmness Cordiality
DIAPHRAGM (3)	Staccato (as rhythmic laughter) Rhythm; Phenomenon of TRANSMISSION; Radiance Mood
NAVEL (2)	(2) Emotion
LOWER SPINE (1)	(1) Rootpoint; Sexuality; Creative Energy and Force



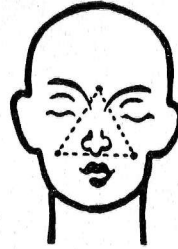
'NA - ' (Air)



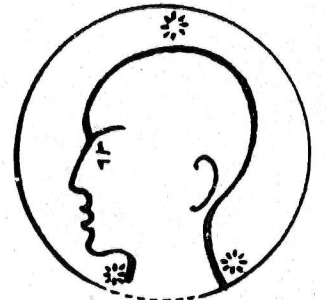
' - DA' (Fire)



N A D A SOUND



Refinement of placing in the MASK



Balance of Singing in the HELMET

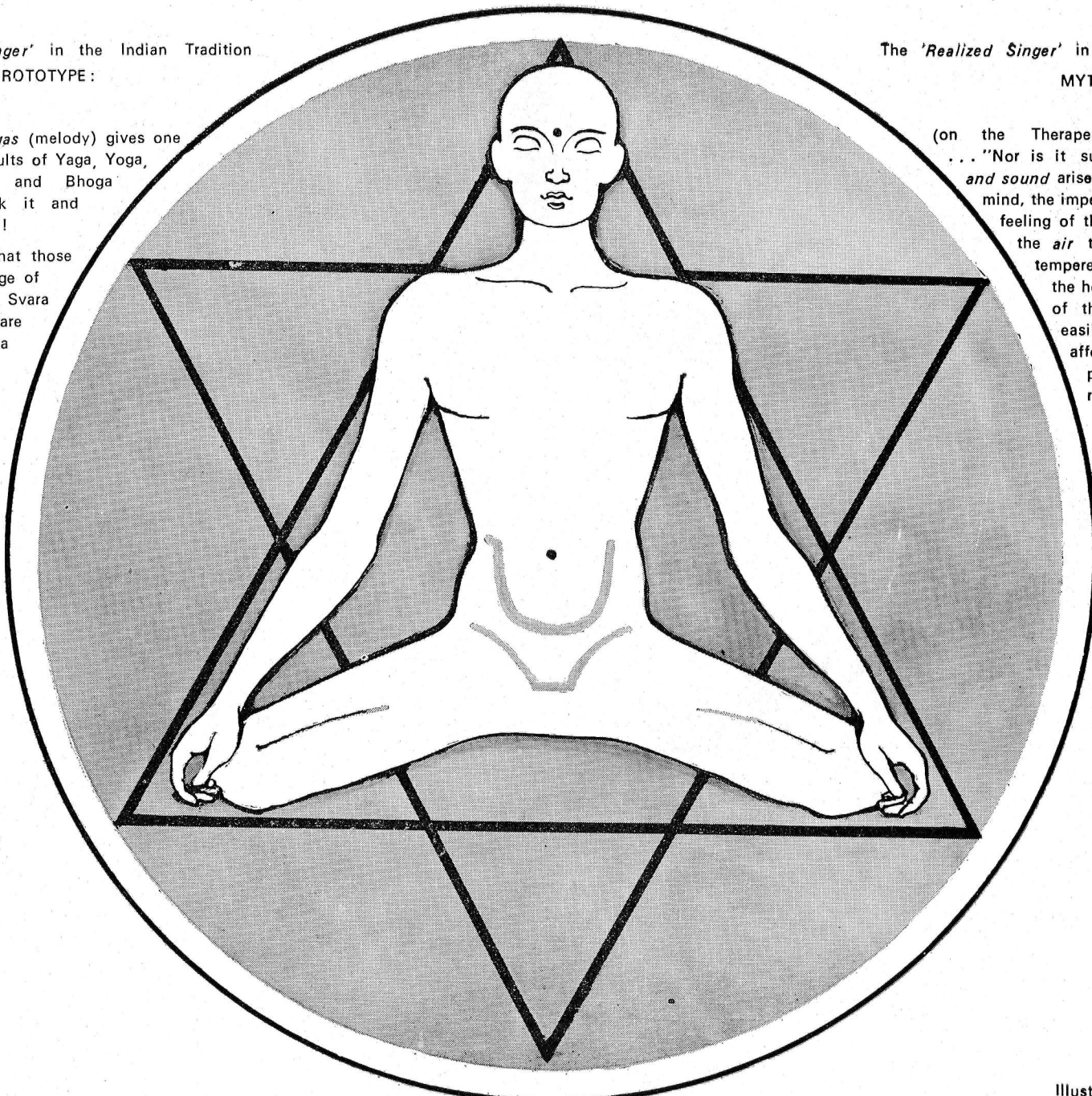
The 'Realized Singer' in the Indian Tradition
MYTHOLOGICAL PROTOTYPE:

NARADA

"The nectar of *Ragas* (melody) gives one the beneficent results of Yaga, Yoga, Tyaga (sacrifice) and Bhoga (enjoyment). Drink it and delight, Oh mind!

Tyagaraja knows that those who have knowledge of Nada, Omkara and Svras (sounds) which are nothing but Sadasiva Himself are realized souls."

'Regasudharasa' of Sri Tyagaraja



The 'Realized Singer' in the Occidental Tradition.

MYTHOLOGICAL PROTOTYPE:
ORPHEUS

(on the Therapeutic Power of Music)
... "Nor is it surprising; for since *song and sound* arise from the cogitation of the mind, the impetus of the *Phantasy*, and the feeling of the heart, and together with the *air* they have broken up and tempered, strike the aerial spirit of the hearer, which is the junction of the soul and body, they easily move the phantasy, affect the heart and penetrate into the deep recesses of the mind."

Marsilio Ficino (musician, philosopher of the Renaissance)

and devotion to singing and its content are to be associated here also.

Linked to this point is the palate where the sense of space has its seat and from where the voice is actually projected into the surrounding space. It is here that we can sense the *elevation* conveyed by sound which brings about an uplifting of the listener's mind. This state finds its expression in the myth of the eagle of the spirit which grasps the snake of the psyche and takes it up into the heights of the spirit. Similarly, the spirit in its enthusiasm grasps the awakened inner forces of the psyche (symbolized by *Kundalini*) and takes it high up to the higher self to the point marked by the topmost *chakra* above the crown of the head. Here, in the *Sahasrara chakra*, they become one with the cosmos in the highest perfection in the realm of supreme beauty. Sri Tyagaraja in 'Intakannanandamemi' says "Is there any bliss greater than this - to deem it sufficient to dance, to sing divine music, to pray for His presence and to be in communion with Him in mind - to deem it sufficient to forget oneself, body and senses, at the mere chanting of the Lord's name and to become one with Him, and to realize at the time of worship and meditation that He is the whole Universe - and this is admitted by all the good souls"

Beauty is the aim of every art, especially the art of singing. In European mythology, the goddess of beauty is Venus, also called Aphrodite, and her symbol is the '*Hexagram*', also known as the 'Seal of Salomon' or 'Star of David'. In this symbol common to all the great religions¹⁵, we find the intertwining and mystical union of two principles. One triangle symbolizes the body which rises upward like a pyramid and becomes imbued with triangle symbolizing the fire of the spirit. This fire of enthusiasm merges

in the *Prana* or life-breath, and from the union of body, soul and spirit evolves the noble singer ('magician', 'priest') who is the centre of the rays extending in all the Six Realms. David and Salomon, the sublime singer-poets and kings of the ancient Hebrews were associated with this symbol for these reasons.

10. THE USE OF ELECTRONIC DEVICES IN THE WORK OF A MUSICIAN

It is necessary to make a clear statement regarding an unfortunately controversial matter which might not be appreciated by everyone :

1. For the purpose of studies, for one's own control, as a memory-aid and for the use of archiving music, there is, of course, no harm in using technical aids now at the musician's disposal as far as it does not interfere with his spontaneous creativity or mislead his musical ear through bad reproduction.

2. In public performances - whatever the size of the audience might be - there should not be any use of amplification for the voice or any instrument. This necessarily leads to distortions and changes in the original personal characteristics of a voice's sound and causes an undesirable denaturation in classical performing arts of rather modern origin in India.

3. The transmission of a singer's voice into another room, for instance, would require fine equipment and musically trained technicians in order to preserve the original timbre and volume of the voice.

4. The personal charm and quality of a voice in its own timbre is in most cases wholly lost when electronic devices

15) Compare India's auspicious 'Shatkona' hexagram and the intricate 'Srichakra' - see also chart.

are put in between musician and listener, which accounts for the total absence of such unnecessary equipment in any classical performance of worth all over the world. The spiritual momentum (as described in above paragraphs) inherent in the natural transmission of sound vibrations to the listener is completely absent in electronic transmission.

5. Our ancestors built their temples, churches, theatres and other sites for enjoying music in harmony with the natural laws that help to convey the magic of music without fail to large audiences. Even to this day, we can enjoy these marvels in many places.

6. The discerning listener certainly should refuse to become identified with the masses of undiscerning and insensible sound-consumers who have already become victims of superfluous noise-dispensation. In and out of concert-halls, irrevocable loss of hearing is known to be alarmingly on the increase. Has not Lao Tse the Chinese sage, warned thousands of years ago that he who (ab-) uses the machine will have the heart of a machine, (or will be in need of a hearing-aid due to his own fault in this case)?

7. A voice that appears to be very loud in the nearer surroundings through effortful screaming and the like (picked up and filtered by the microphone) is perceived merely as a diffused noise rather than musical sound, at some distance. You may remember the description of the working of the vocal folds (the membrane-like inner edge of the vocal cord) set into vibration by the expert singer. The stretching-function will create a long and well-carrying wavelength without much effort. The effortful screaming, on the other hand forces only the heavier part of the vocal cord into motion with the result of a badly carry-

ing short wavelength. A well-trained voice will be heard (and always has been) over long distances due to the scientifically established fact that a voice that carries well does not need to be very loud if heard from a short distance. Yet, it is well sustained by the so-called 'Overtones' created through 'headresonance' by application of the techniques described above. A voice trained on the lines described in this treatise does not require amplification even for a large audience in a large hall.

CONCLUSION

For the student of singing, a few brief practical hints :

- 1) Never practice too long in one stretch until you feel tired. It is better to practice several times a day for shorter periods in freshness than to practice without concentration.
- 2) As explained above, enthusiasm and enjoyment of singing are essential prerequisites for a vocalist.
- 3) Practice all the different functions of the voice in a *balanced* manner. This applies to the trained singer's practice to the same extent as to the beginner's.
- 4) Muscles have a tendency to gradually decrease in size and working-capacity (atrophy) if not used for some time. Thus *regular* practice is indispensable for them.
- 5) Quick impulses train the muscle, while unnecessarily long held notes are tiresome and without much beneficial effect.
- 6) Exercises of contrasting effect should follow each other. Hereafter, you should sing some favourite composition with joy.
- 7) The work required for the build-up of a singer should be characterized by rhythmic sense a meaningful and clearly defined method and firm control by the teacher.